Run IIa Data Size Estimation

This short note summarizes Run IIa data-sizes for the purpose of analysis computing discussions. Most of these numbers are taken from the document prepared for the Bird Committee with one exception. As a result of recent discussions on MC storage, MC DSTs composed of DST, MC Kine and Raw Data Chunks are kept for GEANT Monte Carlo events.

Run IIa:	a two-year running with a constant DAQ rate of 25 Hz
Data events:	1.58×10^9 events
MC events:	0.79×10^9 events (1/2 of data events)

A quarter of the MC events are to be produced using GEANT based simulation program while the rest are to be produced using a fast simulation program (PMCS).

Data Tier:

Data:	Raw Data
	DST
	Thumbnail
MC (GEANT)	MC DST (= DST + MCKineChunk + RawDataChunk)
	MC TMB (= TMB+MCKineChunk)
MC (PMCS)	MC TMB

Data	Event Size (kB)	Run IIa (TB)
Raw	250	395
DST	150	237
TMB	10	15.8
Data Total		*647.8*
MC (GEANT)		
MC DST	300	60
MC TMB	20	4
MC (PMCS)		
MC TMB	20	11.8
MC Total		*75.8*
Total		**723.6**

The table above does not take into account multiple copies of different data sets nor user-generated files.